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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/679,393 | 10/07/2003 | Iuan-Jou Yang | 2846-0274P | 5455 |

2292 7590 09/29/2004

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EXAMINER

AUSTIN, MELISSA J

ART UNIT PAPER NUMBER

1745

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/679,393 | YANG, IUAN-JOU | |
| | Examiner | Art Unit | |
| | Melissa Austin | 1745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1, 2A, and 2B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "substantially a metallic receptacle box" is unclear in claim 1. It is not clear from reading the claim if substantially refers to the box or to the metallic nature of the box. From the specification (pg. 3, [0019]), the examiner is construing the phrase to mean a metallic box that is substantially rectangular.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al. (6,045,944).

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With respect to claims 1, 2, and 3, Okada teaches a prismatic sealed lithium ion battery. Prismatic is defined as: Of, relating to, resembling, or being a prism.¹ A prism is defined as: A solid figure whose bases or ends have the same size and shape and are parallel to one another, and each of whose sides is a parallelogram.² The battery case (Figure 1, 1) is made of a prismatic metal outer jacket (Figure 1, 2: applicant's housing, rectangular (claim 3) or square (claim 2: special case of rectangular having all sides equal in length)) having a bottom (applicant's base plate) and an opening. An insulating sheet (Figure 1, 4: applicant's insulating section) is formed on the inner surface of the bottom portion of the outer jacket. An electrode member (Figure 1, 5: applicant's electrode set), composed of a spirally wound negative electrode, separator, and positive electrode (applicant's jelly roll, negative device, separation film, and positive device), is housed in the outer jacket. A metal lid (Figure 1, 3: applicant's closure-like end) for sealing the open end of the outer jacket contains a hole where a negative electrode terminal (Figure 1, 12: applicant's negative terminal) is sealed through an insulating member (Figure 1, 13; shown as a ring in Figure 2: applicant's sealing ring) with a hermetic seal. As seen in Figure 1, the negative electrode terminal extends below the metal lid into the housing. One end of a lead (Figure 1, 14: applicant's downward extending lead wire) is connected to the lower end of the negative electrode terminal, and the other end of the lead is connected to the negative electrode of the electrode member (applicant's negative end). (Col. 3, In 51 – Col. 4, In 15) The outer jacket serves as the positive electrode terminal; Figure 7 shows that a positive electrode lead (Figure 7, 25) connects the positive electrode of the electrode member with the metal lid thus electrically joining the outer jacket and positive electrode (Col. 6, In 64 – Col. 7, In 8). Although the positive electrode (applicant's positive end) is not connected to the bottom of the outer jacket (applicant's base plate), one of ordinary skill in the art would know that connection of the positive electrode to any part of the metal outer jacket (including the bottom

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portion/base plate as required by applicant) would result in the outer jacket serving as the positive electrode terminal.

5. With respect to claim 4, the Okada reference teaches a prismatic, or rectangular, outer jacket (applicant's housing). Claim 4 requires an elliptical housing. A change in shape, given no criticality to the shape, is generally recognized as a mere design consideration and, as such, not sufficient to patentably distinguish over the prior art. In re Dailey 149, USPQ 47 (CCPA 1966).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

| | | | |
|-----------------|--------------------|---------------|---|
| Shkuratoff | 5,896,647 | Apr. 27, 1999 | Electrode connected to insulated base, terminal through lid with seal, jelly roll |
| Kitoh et al. | US 2001/0007729 A1 | Jul. 12, 2001 | Jelly roll, terminal through lid with seal, electrode connected to insulated base |
| Gilmour | 4,567,121 | Jan 28, 1986 | |
| Kruger et al. | 4,559,283 | Dec. 17, 1985 | |
| Miyazaki et al. | 6,573,000 | Jun. 2, 2003 | |
| Skoumpris | US 2002/0142216 A1 | Oct. 3, 2002 | |
| Yanai et al. | 6,235,426 | May 22, 2001 | |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Austin whose telephone number is (571) 272-1247. The examiner can normally be reached from 7:15 am – 3:45 pm (EST).

If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The fax number for the organization where the application proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public Pair. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick Ryan
502-401745